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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Jefferson P. Ward

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EXAMINER

PHAM, THIERRY L

ART UNIT

PAPER NUMBER

2624

DATE MAILED: 01/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/661,898	Applicant(s) WARD ET AL.	
	Examiner Thierry L Pham	Art Unit 2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Amendment filed on 9/4/04.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-5,8,9,11,13,16 and 17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3-5, 8-9, 11, 13, 16-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

- This action is responsive to the following communication: an Amendment filed on 9/4/04.
- Claims 2, 6-7, 10, 12, 14-15 have been canceled; Claims 1, 3, 5, 9, 16-17 are currently amended.

Response to Arguments

- Applicant's arguments, see page 7-9, filed 9/3/04, with respect to the rejection(s) of claim(s) 1 under 102(b) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of newly found prior art references.

Claim Rejections - 35 USC § 101

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 16-17 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The claimed invention is a computer related invention. The Computer-Implemented Invention Guidelines issued by the U.S. Patent and Trademark Office describe the procedures for examining such inventions. The first step is to determine whether the invention as defined by the claims falls within one of the three following categories of unpatentable subject matter: (1) Functional descriptive material such as a data structure *per se* or a computer program *per se*, (2) Non-functional descriptive material such as music, literary works or pure data, embodied on a computer readable medium; or (3) A natural phenomenon such as energy or magnetism. The invention as defined by the claims is not a natural phenomenon or pure data, however, it is a computer program *per se*, which does not mount/store on any computer-readable medium; therefore, these claims are rejected for non-statutory basis.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 8-9, 11 and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The limitations “gathering data relating to prior print setting selections; comparing the prior print setting selection data to at least one characteristics of the print request” as recited in claim 8 is unclear and confusing. The examiner cannot be able differentiate between print setting selection and characteristics of print request. The examiner is unclear whether the print setting selection is part of the print request or a separate operation performed by a hardware device or by users/operators. If the print request and print setting selection is incorporated in one operation, what there is to compare? It is known in the art, prior to submit a print request to a printer, one of ordinary skill in the art must select a print setting (i.e. paper type, color, monochrome, and etc) for a print request to be submitted to a printer. It is recommended by the examiner that the applicants to replace/change the phrase “print request” to “document data or print data” to clearly define the invention.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall

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have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim 5 is rejected under 35 U.S.C. 102(e) as being anticipated by Fan et al (U.S. 6757081).

Regarding claim 5, Fan discloses a method of selecting one of a plurality of print settings (scanner settings, col. 9, lines 50-55, since scanner 40 is a multi-functional includes a printing unit, thereby, applying the scanner settings are equivalent to print settings, i.e., prior to output an image data with color attributes by the print engine, the scanner is set to scan color attributes rather than monochrome attributes) for printing (multi-functional scanner 40 includes printing function, fig. 1, col. 6, lines 25-32) a document comprising: comparing an amount of text data in the document and an amount of image data in the document (CPU 32 of scanner/printer system analyzes and compares text data and image data within the document, col. 9, lines 25-67); selecting an optimum print setting (CPU 32 selects an optimum settings based upon the comparison results between the amount of text and image data within the document, for example, if the document contains more text than image data, then text scanning/printing operation is carried out, col. 9, lines 25-67) from the plurality of print settings based on the amount of text data as compared to the amount of image data in the document; and utilizing (col. 9, lines 25-67) the optimum print setting to print (multi-functional scanner 40 includes printing function, col. 6, lines 25-32) the document.

Claim 8 is rejected under 35 U.S.C. 102(b) as being anticipated by Miller et al (U.S. 5731823).

Regarding claim 8, Miller discloses a method of selecting one or a plurality of print settings (i.e. printer driver provides user interface with plurality of print settings as shown in fig. 5) for printing a document in response to a print request comprising the steps of: gathering data (determining the information attributes of the document 42 as shown in fig. 2 whether it contains text, graphic, graphs, and etc, col. 6, lines 25-52) relating to prior print setting selections; comparing the prior print setting selection data to at least one characteristics of the print request (determine what type of print request is

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selected by a user using printer driver interface as shown in fig. 5, i.e. intensity control, halftoning, and etc); identifying an optimum print setting (identifying the most appropriate application for the document information attributes, i.e., graphic information will process according to graphic application, col. 8, lines 6-53) for the print request; and utilizing (applying the optimum setting to the document based on its attributes, cols. 7-8) the optimum print setting to print the document (i.e. if the document contains scanned image, the system will apply print setting with lower resolution to maximize print quality, col. 7, lines 65-67 to col. 1-17).

Claims 9, 11, 13, 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Freeman et al (U.S. 6707574).

Regarding claim 9, Freeman discloses a method of selecting one of a plurality of print settings (plurality of print setting attributes, col. 3, lines 15-26 and col. 4, lines 1-15) for printing a document in response to a print request comprising the steps of: analyzing (analyzing the print job characteristics attributes, col. 2, lines 54-67 and col. 4, lines 45-50) a plurality of characteristics relating to the print request, the plurality of characteristics including input/output protocol (type of input devices, fig. 1, col. 3, lines 35-42), a host device type, an application being used to print the document (type of application program generates a print job such as PDL, PCS, col. 2, lines 38-67), a job queue status (priority, col. 2, lines 54-60), and a time of day (schedule time, col. 6, lines 1-5); identifying (selecting the best print settings/mode that is best for the identified print job attributes, cols. 3-4) from the plurality of print settings an optimum print setting that is best suited for at least one of the plurality of characteristics; and utilizing (applying the attributes/settings to the print job, cols. 2-4) the optimum print settings to print the document.

Regarding claim 11, Freeman further discloses the method of claim 9, wherein the step of analyzing a plurality of characteristics further comprises the steps of: gathering data relating (gathering information of print job attributes, col. 4, lines 45-67) to prior print settings selections; and analyzing (analyzing and selecting the optimum settings

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based on the print job characteristics, i.e., priority, cols. 3-4) the prior print settings selection data to identify the optimum print settings.

Regarding claim 13, Freeman further discloses the method of claim 9, further comprising the step of weighting each of the plurality of characteristics according to at least one factor (i.e. priority, finishing options, and etc, cols. 3-4).

Regarding claim 17: Claim 17 recites limitations that are similar and in the same scope of invention as to those in claim 9 except computer readable memory for storing computer programs. All computers/printers have some type of computer readable medium (i.e. memory 36, fig. 1) for storing the computer programs; hence claim 17 would be rejected using the same rationale as in claim 9.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 4, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshida (U.S. 5227894), and in view of Adams et al (U.S. 6315379).

Regarding claim 1, Yoshida discloses an image forming apparatus (facsimile, fig. 1) for printing/forming a document comprising: (●) counting a number of pages in the document (col. 4, lines 55-56); (●) comparing the counted number of pages to a predetermined threshold (comparing the counted number of pages with number entered via control panel console, col. 4, lines 57-62).

However, Yoshida fails to explicitly disclose a method of selecting one of a plurality of print settings for printing a document based on the counted number of pages, and utilizing the selected print setting to print the document.

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Adams, in the same field of endeavor for image forming apparatus, teaches a method of selecting one of a plurality of print settings for printing a document based on the counted number of pages (if the print job contains a large amount of data/pages, high-printing speed is selected; if the print job contains a small amount of data/pages, slow-printing speed is selected, col. 7, lines 5-25), and to utilizing the selected print setting to print the document (col. 7, lines 5-25).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Yoshida as per teachings of Adams by determining an appropriate printing speed based upon the counted number of pages because of a following reason: (●) to reduce the printing time if the print job is large (Adams, col. 7, lines 5-25) by increasing the printing speed; (●) to enhance print output quality of the print job is small by reducing the printing speed (Adams, col. 7, lines 5-25).

Therefore, it would have been obvious to combine Yoshida with Adams to obtain the invention as specified in claim 1.

Regarding claim 4, the combinations of Yoshida and Adams further teaches the method of printing of claim 1, further comprising the steps of: determining an amount of image data in the document (Adams, col. 19, lines 5-10); and selecting an optimum printing setting based on the amount of image data (Adams, col. 19, lines 5-10).

Regarding claim 16: Claim 16 recites limitations that are similar and in the same scope of invention as to those in claim 1 except computer readable memory for storing computer programs. All computers/printers have some type of computer readable medium (i.e. RAM, fig. 1, Adams) for storing computer programs, hence claim 16 would be rejected using the same rationale as in claim 1.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshida and Adams as applied to claim 1 above, and further in view of Miller et al (U.S. 5731823).

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Regarding claim 3, the combinations of Yoshida and Adams fail to explicitly teach the method of determining an amount of text data in the document; and selecting the print setting based on the amount of text data.

Miller, in the same field of endeavor for printing, teaches a method for determining an amount of text data in the document (determining amount of text data 44 within the document 42, fig. 2); and selecting the print setting (selecting the print setting to process the text data within the document, col. 6, 'lines 25-63), based on the amount of text data.

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Yoshida and Adams as per teachings of Miller because of a following reason: (●) to reduce the printing time if the print job is large (Adams, col. 7, lines 5-25) by increasing the printing speed; (●) to enhance print output quality of the print job is small by reducing the printing speed (Adams, col. 7, lines 5-25); (●) to improve output quality of images (Miller, col. 2, lines 1-18).

Therefore, it would have been obvious to combine Yoshida with Adams to obtain the invention as specified in claim 3.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thierry L Pham whose telephone number is (703) 305-1897. The examiner can normally be reached on M-F (9:30 AM - 6:00 PM).

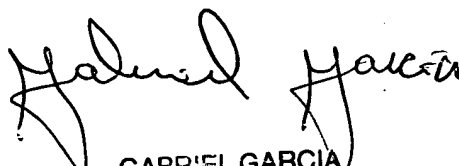
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K Moore can be reached on (703)308-7452. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Thierry L. Pham

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